

5th INTERNATIONAL CONFERENCE ON ASPHALT 4.0

P R O G R A M M E

**Asphalt 4.0: digital intelligence for more
sustainable, durable and productive roads**

Madrid (Spain) | 22 - 23 SEPTEMBER | 2026 | Meeting Place: c/ Orense, 34

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Asphalt 4.0: digital intelligence for more sustainable, durable and productive roads

The Spanish Asphalt Pavement Association (Asefma), in collaboration with the Slovenian Asphalt Pavement Association (ZAS) and the German Asphalt Pavement Association (DAV) and with the support of EAPA, is pleased to announce the 5th International Conference on Asphalt 4.0 (ICA 4.0), which will be held at the Center Business Meeting Place in Madrid, see <https://ica4point0.com>.

The fifth edition of the International Conference on Asphalt 4.0 will take place on September 22 and 23, 2026, in Madrid. It will be held in person, digitally, and virtually, in a PDV format, as was the case in previous editions.

Building on the momentum of previous editions, this conference aims to provide an updated international overview of how digitalization is transforming the asphalt paving sector and, increasingly, how digital intelligence is helping the sector become more sustainable, more productive, more durable and more attractive for the future. Previous editions already highlighted the growing role of decarbonization tools, digital monitoring of road condition, digital platforms for road administrations, quality control technologies, pavement durability and innovation-oriented monographs for the sector.

This new edition will offer an excellent opportunity to learn firsthand which programmes, companies, administrations and technologies are leading this transition. It will bring together experts from industry, road authorities, academia and solution providers to exchange experiences, compare practical case studies and identify the next priorities for implementation.

The technical programme will focus on the most relevant challenges and opportunities now facing the sector: the contribution of digitalization to decarbonization strategies, the improvement of productivity in asphalt mixtures and paving processes, the development of digital platforms and smarter decision-making tools for road administrations, the enhancement of pavement durability through better data and better execution, and the deployment of advanced quality control systems. Particular attention will also be given to the expanding role of Artificial Intelligence, Digital Twins, connected data, automated monitoring systems and other enabling technologies that are reshaping the way roads are designed, built, maintained

and managed. These themes are a clear continuation of the core agenda already developed in the 2025 programme and its published conference materials.

As in previous editions, the conference will combine keynote presentations, technical sessions and round tables open to discussion, creating a dynamic forum for debate and knowledge exchange. In addition, selected presentations and practical experiences will help participants understand the real level of development already achieved in different countries and organizations, as well as the barriers that still need to be overcome.

Beyond the strictly technical field, Asphalt 4.0 will continue to address wider issues linked to transport infrastructure, innovation capacity and the future of the sector. In this sense, the conference is not only about digital tools, but about a broader transformation: using data, intelligence and collaboration to deliver roads that are more efficient, more resilient and better aligned with environmental and societal expectations.

This edition therefore aspires to consolidate ICA 4.0 as a reference meeting point for all those who believe that the future of asphalt will not be defined only by materials and machinery, but also by information, intelligence and the capacity to convert technology into better roads.

Recognizing the value of corporate participation, we are offering three sponsorship options: Gold, silver and bronze. Both sponsorship packages include a variety of benefits, see <https://ica4point0.com>

Subjects:

- *Smart automated and connected paving equipment*
- *The impact of digitalization on decarbonization*
- *Equipment simulators for training and operator upskilling*
- *Development of digital platforms for road administrations*
- *Consequences for the durability of pavements*
- *Visit to the: "Remotely controlled equipment and simulators for training at Finanzauto", Arganda del Rey (Madrid)*
- *Digital tools to monitor vehicle energy savings derived from pavement condition improvements*
- *New digital technologies for quality control*

Tuesday, 22nd

08.30 – 09.00 h **Registration**

09.00 – 09.30 h **Opening session**

Carsten Karcher | Secretary General of EAPA

Slovenko Henigman | President of EAPA and ZAS

Juan José Potti | Executive President of Asefma

09.30 – 09.50 h **Key lecture. Smart automated and connected paving equipment**

Jens Wagner | Putzmeister

SESSION 1

The impact of digitalization on decarbonization

Moderated by **Andreas Stahl, DAV**



09.50 – 10.10 h **From EPDs to DPPs: Sustainability in Asphalt**

Lisa Oberaigner | Emidat, München

10.10 – 10.30 h **EPDs for Asphalt: Experiences from the Netherlands**

Artjom Janssen | Ecochain, Amsterdam

10.30 – 10.50 h **AI and sustainability are driving the road construction site metaverse**

Marcus Müller | Smart Site Solutions

10.50 - 11.30 h **COFFEE BREAK**



SESSION 2

Equipment simulators for training and operator upskilling

Moderated by **Ralf Pomp, EAPA**



11.30 – 11.50 h **Remotely controlled public works equipment and simulators for training**

Javier León | Finanzauto

11.50 – 12.10 h **Asphalt plant simulators for training and process optimization**

Stephen Mac Nelly | Benninghoven

12.10 – 12.30 h **Title to determinate**

Gilbert Leb | Q Point

12.30 – 13.00 h **Round table on equipment simulators**

Composed of: **Stephen Mac Nelly, Gilbert Leb, Javier León** and **Carsten Karcher**

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13.00 - 14.00 h LUNCH



SESSION 3

New technologies for quality control

Moderated by **Slovenko Henigman**



- 14.00 – 14.20 h **The road to innovation is full of potholes. How can we change this sustainably?**
Matthias Martus | Infratest
- 14.20 – 14.40 h **Mobile mapping, global experiences in paving applications**
José Manuel Muñoz | Topcon
- 14.40 – 15.00 h **The GPR (radar) technology on rollers**
Axel Mühlhausen | HAMM
- 15.00 – 15.20 h **Assessment on pavement surface characteristics using connected vehicle data**
David Llopis | Universitat Politècnica de València

SESSION 4

The consequences for the durability of pavements

Moderated by **Breixo Gómez**



- 15.20 – 15.40 h **Key digital points to improve durability of pavements**
Igor Ruttmar | TPA
- 15.40 – 16.00 h **Digital developments to achieve target compaction**
Thibério Tanus | Dynapac
- 16.00 – 16.20 h **Cost effective laser technology for pavement analysis**
Thomas Claustre | Xenomatix
- 16.20 – 16.40 h **Artificial intelligence, the future of pavement management**
Anna París and **Alex Bencomo** | Parma Ingeniería
- 16.40 – 17.10 h **Round table on durability**
Composed of: **Igor Ruttmar**, **Thibério Tanus**, **Thomas Claustre** and **Anna París**
- Visit to the: “Remotely controlled equipment and simulators for training at Finanzauto”**
- 18.00 – 19.30 h **Visit to Finanzauto’s machinery simulation and operator training facilities in Arganda del Rey (Madrid)**
Javier León | Finanzauto

Wednesday, 23rd

SESSION 5

Digital tools to monitor vehicle energy savings derived from pavement condition improvements



Moderated by **Juan José Potti**

- 09.00 – 09.20 h *Connected vehicle big data for monitoring energy efficiency gains*
Björn Zachrisson | Nira Dynamics
- 09.20 – 09.40 h *Knowledge development and transfer in a digitalized pavement industry*
Berwich Sluer and Natascha Poeran | &NBSP Partners in Solutions
- 09.40 – 10.00 h *Autonomous pavement inspection: beyond technology*
Ibon Arechalde | Asimob
- 10.00 – 10.20 h *The AECTech project: the Road Data Space*
Enrique Miralles | AEC
- 10.20 – 11.00 h *Round table on digitalisation to pavement industry*
Composed of: **Bjorn Zachrisson, Enrique Miralles, Ibon Arechalde, Berwich Sluer** and **Natascha Poeran**

11.00 - 11.45 h COFFEE BREAK



SESSION 6

The development of digital platforms for road administrations



Moderated by **Miguel Caso**

- 11.45 – 12.05 h *BIM-based PMS & physics-informed digital twins*
Gordon Airey or Anand Sreeram | University of Nottingham
- 12.05 – 12.25 h *From engineering evidence to public decision: the strategic role of technical teams in road asset management*
Fernando Varela | President group CT 3.3 | PIARC
- 12.25 – 12.45 h *Alliance building and necessity to innovate and support sustainability in road construction from the perspective of the Dutch road administration*
Miriam Frosi | Rijkswaterstaat, The Netherlands
- 12.45 – 13.05 h *Determination of traffic volume relevant for design purposes based on automated, AI-driven analysis and in-situ video recordings*
Wolf Uhlig | IDAV

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- 13.05 – 13.25 h ***Real-time automatic data acquisition and processing system for intelligent road asset management***
Nacho Torres and **Cristina Béjar** | BECSA
- 13.25 – 13.45 h ***Post-build intelligence for road networks***
Adam Rusikvas | FUTTEC
- 13.45 h ***Closing session***
Ralf Pomp | DAV, Former President EAPA



Dos modalidades de inscripción	Socios Asefma*	No socios Asefma
Inscripción presencial y Textos de la Jornada	450 € + IVA	750 € + IVA
Visualización online en streaming	75 € + IVA	150 € + IVA

Nota*: para obtener este precio es preciso inscribirse **antes del 31 de agosto**.

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